Program:	Computer Science	
Degrees Offered:	PhD, MSc	
Approved Fields:	• Artificial Intelligence and Computer-Based Games • Graphics, Image Processing, and Computer Vision • Distributed Systems • Software Engineering and Human Computer Interaction • Theoretical Computer Science • Computer Algebra • Bioinformatics and Biocomputing	
External Consultants:	Dr. Ian Munro University of Waterloo	Dr. Evangelos Milios Dalhousie University
Internal Reviewers:	Dr. Benjamin Hill University of Western Ontario	
Date of Site Visit:	June 9-10, 2014	
Evaluation:	*Good Quality with Report due January 1, 2016*	
Approved by:	*SUPR-G on November17, 2014* *SCAPA on November 26, 2014*	

Executive Summary

The Computer Science department is a generally solid program and is estimated to rank among the top twelve in Canada. The graduate program is successful and currently on par with the better programs across Canada. It also seems to be at an important crossroads regarding its directions for the future and would benefit from a coherent plan for moving forward.

Two fundamental issues repeatedly arose during the review. First, the program needs to develop a strategic plan for moving into the next stage of its existence. Key components of this plan should include: developing and strengthening connections and collaborations with industry partners for research and student development and improving participation in Faculty of Science initiatives such as Science Themes, Western Clusters. Related to the department's strategic vision is the issue of hiring. The department's biggest concern was the lack of assistant professors within the department and not having hired for the past ten years. The addition of two positions through the Western Clusters of Research Excellence program and the recruitment of excellent junior faculty members to replace retirees would support the program's continued strength.

The second fundamental issue was an apparent lack of communication within the department and between the department and the Faculty of Science. This was especially acute surrounding the issue of international student funding, but it seemed to be more generalized. Faculty members seemed unaware of university policies, practices, and positions. Graduate students complained most about the absence of direction or clear expectations regarding long-standing and new policies, such as the Topics Research Survey / Proposal (TSP) exam. Better lines of communication and more effective means of discussing issues and developing consensus within the program should be implemented.

The contribution of supervisors' research funds to student support was seen to be below the norm for comparable programs and the program is encouraged to increase its level of funding support. This aspect of student funding was not addressed in the program's response. Rather, focus was given to the cultivation of outside funds (from the Faculty of Science, industry), and to the creation of other programs (e.g. a professional MSc, a MMASc program, and/or joint programs with Statistics or Schulich) to bring funds into the department that can be used for additional international student support.

The international student "quota" was a major source of concern to the program because it is so dependent on international student enrollments. The challenge to recruiting domestic students is not

unique to Western's program, but it should be pressed, and attention should be given to the recruitment of part-time students from industry. Growth in the course based MSc is thought to be possible in this regard.

Although the external report noted with surprise that the post-BA and post-MSc PhD program had the same requirements, there were no recommendations regarding the curriculum content. They only recommend that some clarity regarding the expectations for students and the content of the research methods course be offered by the program.

Significant Strengths of Program:
- Good record of publication by both the faculty and graduate students
- Good record of research funding
- Strength in the areas of symbolic algebra, theory and bioinformatics, distributed systems, image analysis, and computer vision/artificial intelligence
- Adequate library and program resources
- Good interdisciplinary outlook of the faculty compliment

Opportunities for improvement & Enhancement:
- Develop a departmental strategic vision and plan for the next ten years
- Improve communication between the Faculty and the Department, especially with regard to fiscal matters and policy issues
- Improve communication between Department Administration and members of the Department
- Better inform the graduate students of the policies and expectations, especially those concerning student milestones
- Cultivate closer ties with industry partners in London
- Replacement and renewal of faculty compliment
- Strengthen the Department's connections with Faculty of Science initiatives

Recommendations for implementation:	Responsibility	Resources	Timeline
Develop a strategic plan for the graduate program for the next decade	Department Chair	Consultation with all relevant stakeholders, including faculty, staff, students, industry	June 2015
Faculty renewal	Faculty of Science	Financial resources and support	Next 2-3 years
Strengthen and improve connections with Faculty of Science initiatives, especially the Big Data research cluster initiative	Department Chair, Graduate Chair		ongoing
Grow enrollment of the course-based MSc	Graduate Chair	Funding and support for advertising and recruitment	2 year
Cultivate closer connections and ties with industry	Department Chair, Graduate Chair and program members		ongoing
Increase the minimum and average amount of student support from supervisors	Department Chair, Graduate Chair and program members	Research funds	August 2015
Improve communication generally between the Faculty and the Department, and within	Faculty of Science Dean and Associate Deans, Department Chair, Graduate Chair		ongoing

the Department, and especially with regard to policies			
Improve communication between the Department and the Graduate Students, especially regarding Graduate Program policies and expectations Suggest the development of program handbook/guide, improvements to the program website	Department Administration		Sept 2015